

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An application programming interface executable by a computer for providing data mining functionality comprising:

a first layer providing an interface with an application program; and

a second layer implementing data mining functionality, the second layer comprising:

a data mining object repository maintaining data mining metadata,

a plurality of data mining project objects, each data mining project object containing data mining objects created and used by a user,

a plurality of data mining session objects, each data mining session object containing data mining processing performed on behalf of a user,

a plurality of data mining tables, each data mining table mapping a table or a view in a database,

a plurality of data transformation objects, each data transformation object defining computations or manipulations to be performed on data in the database,

a plurality of data mining models, each data mining model implementing conditions and decisions, and

a plurality of data mining result objects, each data mining result object generated as a result of scoring or analyzing a data mining model or an input dataset.

2. (original) The application programming interface of claim 1, further comprising a plurality of data mining settings objects, each data mining settings object specifying a type of model to build and function and model building algorithm specific parameters.
3. (original) The application programming interface of claim 2, wherein the first layer is a client-side layer operable to execute on a client computer system.
4. (original) The application programming interface of claim 3, wherein the second layer is server-side layer operable to execute on a server computer system.
5. (original) The application programming interface of claim 4, wherein the first layer and the second layer are implemented in the Java programming language.
6. (original) The application programming interface of claim 5, wherein the database comprises training data to be used to train the data mining models.
7. (original) The application programming interface of claim 6, wherein the database comprises test and evaluation data to be used to test and evaluate the data mining models.
8. (original) The application programming interface of claim 7, wherein the database comprises scoring data to be used to score the data mining models.

9. (original) The application programming interface of claim 8, wherein each data mining project object maintains a name space within which data mining objects are named.

10. (original) The application programming interface of claim 9, wherein a data mining project object may be shared among users.

11. (original) The application programming interface of claim 10, wherein the data mining table objects are included in the data mining object repository.

12. (original) The application programming interface of claim 11, wherein each data mining table includes a set of columns of data mining data and associated metadata.

13. (original) The application programming interface of claim 12, wherein each data mining transformation object performs data transformations on a data mining table, a data column in a data mining table, a data row in a data mining table, or a value in a data row or a data column in a data mining table.

14. (original) The application programming interface of claim 13, wherein each data mining transformation object comprises metadata.

15. (original) The application programming interface of claim 14, wherein each data mining settings object comprises metadata.

16. (original) The application programming interface of claim 15, wherein each data mining model comprises metadata.

17. (original) The application programming interface of claim 16, further comprising a plurality of schema view objects, each schema view object providing access to a data table in the data mining object repository.

18. (original) A computer program product for use in an electronic data processing system, comprising:

- a computer readable medium;

- computer program instructions, recorded on the computer readable medium, executable by a processor, for implementing an application programming interface for providing data mining functionality comprising:

- a first layer providing an interface with an application program; and

- a second layer implementing data mining functionality, the second layer comprising:

- a data mining object repository maintaining data mining metadata,

- a plurality of data mining project objects, each data mining project object containing data mining objects created and used by a user,

- a plurality of data mining session objects, each data mining session object containing data mining processing performed on behalf of a user,

- a plurality of data mining tables, each data mining table mapping a table or a view in a database,

a plurality of data transformation objects, each data transformation object defining computations or manipulations to be performed on data in the database,

a plurality of data mining models, each data mining model implementing conditions and decisions, and

a plurality of data mining result objects, each data mining result object generated as a result of scoring or analyzing a data mining model or an input dataset.

19. (original) The application programming interface of claim 16, further comprising a plurality of data mining settings objects, each data mining settings object specifying a type of model to build and function and model building algorithm specific parameters.

20. (original) The computer program product of claim 17, wherein the first layer is a client-side layer operable to execute on a client computer system.

21. (original) The computer program product of claim 18, wherein the second layer is a server-side layer operable to execute on a server computer system.

22. (original) The computer program product of claim 19, wherein the first layer and the second layer are implemented in the Java programming language.

23. (original) The computer program product of claim 20, wherein the database comprises training data to be used to train the data mining models.

24. (original) The application programming interface of claim 21, wherein the database comprises test and evaluation data to be used to test and evaluate the data mining models.

25. (original) The computer program product of claim 22, wherein the database comprises scoring data to be used to score the data mining models.

26. (original) The computer program product of claim 23, wherein each data mining project object maintains a name space within which data mining objects are named.

27. (original) The computer program product of claim 24, wherein a data mining project object may be shared among users.

28. (original) The computer program product of claim 25, wherein the data mining table objects are included in the data mining object repository.

29. (original) The computer program product of claim 26, wherein each data mining table includes a set of columns of data mining data and associated metadata.

30. (original) The computer program product of claim 27, wherein each data mining transformation object performs data transformations on a data mining table, a data column in a data mining table, a data row in a data mining table, or a value in a data row or a data column in a data mining table.

31. (original) The computer program product of claim 30, wherein each data mining transformation object comprises metadata.

32. (original) The computer program product of claim 31, wherein each data mining settings object comprises metadata.

33. (original) The computer program product of claim 32, wherein each data mining model comprises metadata.

34. (original) The computer program product of claim 33, further comprising a plurality of schema view objects, each schema view object providing access to a data table in the data mining object repository.

35. (original) The computer program product of claim 34, further comprising a plurality of data mining settings objects, each data mining settings object specifying parameters for building a particular type of data mining model.

36. (original) A system for implementing an application programming interface for providing data mining functionality comprising:

a processor operable to execute computer program instructions; and

a memory operable to store computer program instructions executable by the processor, the computer program instructions implementing an application programming interface for providing data mining functionality comprising:

a first layer providing an interface with an application program; and
a second layer implementing data mining functionality, the second layer comprising:

- a data mining object repository maintaining data mining metadata,
- a plurality of data mining project objects, each data mining project object containing data mining objects created and used by a user,
- a plurality of data mining session objects, each data mining session object containing data mining processing performed on behalf of a user,
- a plurality of data mining tables, each data mining table mapping a table or a view in a database,
- a plurality of data transformation objects, each data transformation object defining computations or manipulations to be performed on data in the database,
- a plurality of data mining models, each data mining model implementing conditions and decisions, and
- a plurality of data mining result objects, each data mining result object generated as a result of scoring or analyzing a data mining model or an input dataset.

37. (original) The system of claim 32, further comprising a plurality of data mining settings objects, each data mining settings object specifying a type of model to build and function and model building algorithm specific parameters.

38. (original) The system of claim 33, wherein the first layer is a client-side layer operable to execute on a client computer system.

39. (original) The system of claim 34, wherein the second layer is server-side layer operable to execute on a server computer system.

40. (original) The system of claim 35, wherein the first layer and the second layer are implemented in the Java programming language.

41. (original) The system of claim 36, wherein the database comprises training data to be used to train the data mining models.

42. (original) The system of claim 37, wherein the database comprises test and evaluation data to be used to test and evaluate the data mining models.

43. (original) The system of claim 38, wherein the database comprises scoring data to be used to score the data mining models.

44. (original) The system of claim 39, wherein each data mining project object maintains a name space within which data mining objects are named.

45. (original) The system of claim 40, wherein a data mining project object may be shared among users.

46. (original) The system of claim 41, wherein the data mining table objects are included in the data mining object repository.

47. (original) The system of claim 42, wherein each data mining table includes a set of columns of data mining data and associated metadata.

48. (original) The system of claim 43, wherein each data mining transformation object performs data transformations on a data mining table, a data column in a data mining table, a data row in a data mining table, or a value in a data row or a data column in a data mining table.

49. (original) The system of claim 48, wherein each data mining transformation object comprises metadata.

50. (original) The system of claim 49, wherein each data mining settings object comprises metadata.

51. (original) The system of claim 50, wherein each data mining model comprises metadata.

52. (original) The system of claim 51, further comprising a plurality of schema view objects, each schema view object providing access to a data table in the data mining object repository.